COUNTY OF SAN DIEGO

AGRICULTURAL COMMISSIONER'S OFFICE

New Agricultural Pest for Southern California

Two Spotted Leafhopper (*Sophonia rufofascia*)

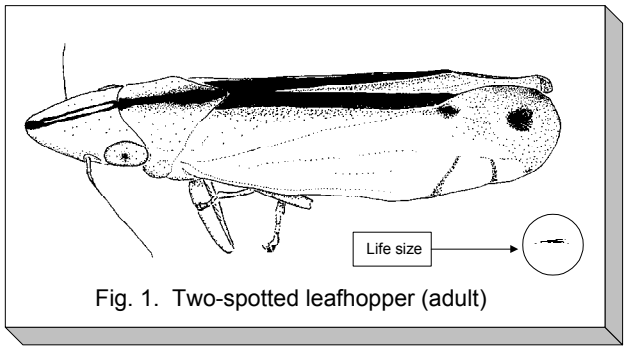

Fig. 1. Two-spotted leafhopper (adult)

Introduction: A resident, breeding population of the **Two Spotted leafhopper** (*Sophonia rufofascia*) was found for the first time in the continental United States. Los Angeles County Agricultural Inspector Michael Sium is credited with finding larvae and adults breeding on 15 gallon potted guava plants in a nursery in the City of Commerce on 1 April 1996. Inspector Sium reported seeing larvae and adults feeding on the underside of the leaves.

On 11 April 1996, Los Angeles County Agricultural Entomologist Rosser Garrison, Supervisory inspector Dan Papilli, and Michael Sium went to the collection site to see this species. They observed it to be common; adults were flushed from the underside of leaves of the host plant. During times of sunshine, these insects were active and jumped at the slightest provocation. Larvae were less evident, but their smaller size and green coloration probably caused them to escape detection.

Like other leafhoppers, this species may be expected to have deleterious effects on their host plants due to the sucking activities by adults and larvae. Large populations might adversely affect certain ornamental and fruit crops (see under **Comments**).

Identification: The adult (Fig. 1) is approximately 5 mm long, primarily light green or pale yellow, and has a bold black longitudinal stripe down the center of its body. A black spot occurs at the tip of the fore wing. A beautiful red or pink flush of varying degrees borders the black dorsal stripe. Larvae (Fig. 2) are smaller, all green, and have a pair of small black spots at the tail end of the abdomen (hence the common name, Two Spotted leafhopper). Both adults and larvae are easily separated from any other species in our area by the combination of characters given above.

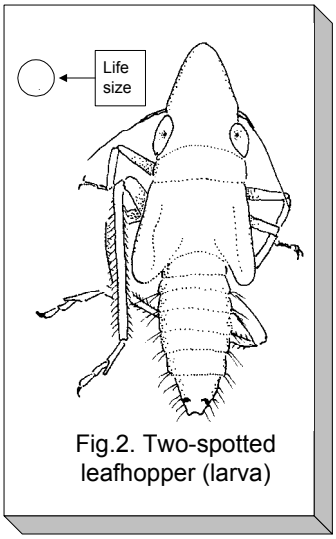

Fig.2. Two-spotted leafhopper (larva)

Life History: Nothing is recorded of the life history of this recently described species, although its development will probably be similar to other species of tropical leafhoppers. In the mild, year-round climate in the Los Angeles area, this species will probably be found to breed year-round.

Comments: This leafhopper was collected on Camellia and described from Guizhou, People's Republic of China in 1983. Larvae were beginning to be found on cut flower shipments to

California from Hawaii about ten years ago, although its specific identity was not yet known. Once adults were collected, Ray Gill, Systematic Entomologist at the California Department of Food and Agriculture in Sacramento was able to identify the species. Although rated "Q", there is no literature on its biology or known host plants. Dr. Alexander Purcell, Entomologist at the University of California, Berkeley has observed this newly introduced species in Hawaii. It has rapidly spread throughout Hawaii and has an immense host range.. In recent (early 1996) e-mail correspondence to Garrison, he states that the feeding activity of the leafhopper is toxic to many cultivated plants including guava. It is also threatening the survival of many Hawaiian native plants some of which are important for watersheds and the survival of interdependant organisms. Its impact in Southern California is unknown but it has spread rapidly throughout the coastal areas of the southern California Counties and has been found as far north as Santa Barbara County. This species will undoubtedly spread to other areas wherever its host plant(s) occur.

Fig. 3. Two-spotted leafhopper larva. Note the twin black spots on tip of abdomen.

Fig. 4. Two-spotted leafhopper adult.

Prepared by Rosser W. Garrison, Entomologist, Los Angeles County Agricultural Commissioner's Office, 3400 La Madera Ave., El Monte, CA 91732 ☎ 626-575-5469. revised: 1-96.